WHAT IS CLAIMED IS:

1. A program recording device which receives a broadcast program and accumulates data of the program, comprising:

a recording unit which records the data of the program;

a compression setting storing unit which stores, for each compressing timing, a re-compression condition which is a condition of starting a compression of a program and an encoding method used in the compression of the program;

a re-compression scheduler which is repeatedly activated, selects programs satisfying the re-compression condition among the recorded data of programs in the recording unit, and designates the encoding method used in the compression of the selected programs by referring to the compression setting storing unit; and

a re-compressing unit which compress data of the selected programs in the encoding method designated by the re-compression scheduler.

2. The program recording device of claim 1, wherein, in the compression setting storing unit, the re-compression condition and the encoding method are established for each importance of a program, and the re-compression scheduler selects programs which satisfy the re-compression condition which corresponds to an importance of each of the programs and the next compressing timing.

3. The program recording device of claim 2 further comprising:

an automatic recording unit which automatically records the data of the program according to a user's taste and registers an importance representing a degree of coincidence between the user's taste and a taste of the program, wherein the registered importance is related to the corresponding program.

4. The program recording device of claim 1, wherein, in the compression setting storing unit, the re-compression condition and the encoding method are established for each attribute of a program, and the re-compression scheduler selects programs which satisfy the re-compression condition which corresponds to an attribute of each of the program and the next compressing timing.

5. The program recording device of claim 4, wherein the attribute includes a type of a program.

6. The program recording device of claim 1, wherein the re-compression condition is a condition that a program to be processed is compressed when a predetermined period passes from when the previous compression of data of the program is performed.

7. The program recording device of claim 1, wherein the upper limit value is established about the compressing timing.

8. The program recording device of claim 1, wherein the encoding method includes a deletion of data of the program.

9. The program recording device of claim 1, wherein the compression of data of the program is made by reducing the number of frames of image data to be displayed per a second.

10. The program recording device of claim 1, wherein when image data which are included in the data of the program and are encoded by using the difference between frames are used, the compression of data of the program is made by displaying the same frames a plurality of times to reconstruct image data having less data of difference.

11. The program recording device of claim 1, wherein when image data which are included in the data of the program and include a group consisting of first frames which are independently encoded and second frames which are next to the first frames and encoded by using

the difference between the frames are used, the compression of data of the program is made by increasing the number of frames consisting of the group.

12. The program recording device of claim 1, wherein the compression of data of the program is made by encoding in an encoding method which produces a volume of data less than a volume of original data before the encoding method is executed.

13. A program recording method which receives a broadcast program and accumulates data of the program by using a computer, comprising the steps of:

recording the data of the program;

referring, at intervals of a predetermined period, to a re-compression condition which is a condition of starting a compression of a program and an encoding method used in the compression of the program, the re-compression condition and the encoding method being established for each compressing timing;

selecting programs satisfying the re-compression condition among the recorded data of programs;

designating the encoding method used in the compression of the selected programs; and

compressing data of the selected programs in the encoding method designated.

14. The method of claim 13, wherein the re-compression condition and the encoding method are established for each importance of a program, and the selecting step selects programs which satisfy the re-compression condition which corresponds to an importance of each of the programs and the next compressing timing.

15. The method of claim 14 further comprising the steps of:

automatic recording the data of the program according to a

user's taste; and

registering an importance representing a degree of coincidence between the user's taste and a taste of the program, wherein the registered importance is related to the corresponding program.

16. The method of claim 13, wherein the re-compression condition and the encoding method are established for each attribute of a program, and the selecting step selects programs which satisfy the re-compression condition which corresponds to an attribute of each of the programs and the next compressing timing.

17. The method of claim 16, wherein the attribute includes a type of a program.

18. The method of claim 13, wherein the re-compression condition is a condition that a program to be processed is compressed when a predetermined period passes from when the previous compression of data of the program is performed.

19. The method of claim 13, wherein the upper limit value is established about the compressing timing.

20. The method of claim 13, wherein the encoding method includes a deletion of data of the program.

21. The method of claim 13, wherein the compression of data of the program is made by reducing the number of frames of image data to be displayed per a second.

22. The method of claim 13, wherein when image data which are included in the data of the program and are encoded by using the difference between frames are used, the compression of data of the program is made by displaying the same frames a plurality of times to reconstruct image data having less data of difference.

23. The method of claim 13, wherein when image data which are included in the data of the program and include a group consisting

of first frames which are independently encoded and second frames which are next to the first frames and encoded by using the difference between the frames are used, the compression of data of the program is made by increasing the number of frames consisting of the group.

24. The method of claim 13, wherein the compression of data of the program is made by encoding in an encoding method which produces a volume of data less than a volume of original data before the encoding method is executed.

25. A recording medium readable by a computer, tangibly embodying a program of instructions executable by the computer to perform a program recording method which receives a broadcast program and accumulates data of the program, the method comprising the steps of:

recording the data of the program;

referring, at intervals of a predetermined period, to a re-compression condition which is a condition of starting a compression of a program and an encoding method used in the compression of the program, the re-compression condition and the encoding method being established for each compressing timing;

selecting programs satisfying the re-compression condition among the recorded data of programs;

designating the encoding method used in the compression of the selected programs; and

compressing data of the selected programs in the encoding method designated.

26. A computer data signal embodied in a carrier wave and representing a sequence of instructions which, when executed by a processor, cause the processor to perform a program recording method which receives a broadcast program and accumulates data of the

program, the method comprising the steps of:

recording the data of the program;

referring, at intervals of a predetermined period, to a re-compression condition which is a condition of starting a compression of a program and an encoding method used in the compression of the program, the re-compression condition and the encoding method being established for each compressing timing;

selecting programs satisfying the re-compression condition among the recorded data of programs;

designating the encoding method used in the compression of the selected programs; and

compressing data of the selected programs in the encoding method designated.

27. A program product comprising, computer readable instructions and a recording medium bearing the computer readable instructions, the instructions being adaptable to enable a computer to perform a program recording method which receives a broadcast program and accumulates data of the program, the method comprising the steps of:

recording the data of the program;

referring, at intervals of a predetermined period, to a re-compression condition which is a condition of starting a compression of a program and an encoding method used in the compression of the program, the re-compression condition and the encoding method being established for each compressing timing;

selecting programs satisfying the re-compression condition among the recorded data of programs;

designating the encoding method used in the compression of the selected programs; and

compressing data of the selected programs in the encoding method designated.